

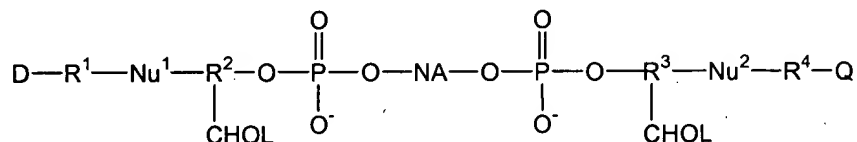
**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1-49. (Canceled)

50. (Previously presented) A probe nucleic acid having the formula:



wherein,

CHOL is a cholesterol derivative;

$\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$  and  $\text{R}^4$  are linker moieties independently selected from the group consisting of substituted or unsubstituted alkyl and substituted or unsubstituted heteroalkyl;

$\text{Nu}^1$  and  $\text{Nu}^2$  are members independently selected from the group consisting of nucleotide residues and nucleoside residues;

NA is a nucleic acid sequence;

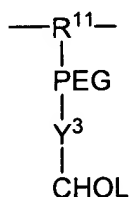
D is a donor of light energy; and

Q is a quencher of light energy,

wherein the CHOL moieties interact to bring D and Q into operative proximity, thereby enabling transfer of energy from D to Q, and

wherein said probe nucleic acid sequence is not hybridized to a target nucleic acid.

1                    51.    (Previously presented) The probe nucleic acid according to claim 50,  
2    wherein  $R^2$ -CHOL and  $R^3$ -CHOL are independently selected and have structures according to  
3    the formula:



4  
5    wherein,

6                     $R^{11}$  is a member selected from the group consisting of substituted or unsubstituted  
7    alkyl and substituted or unsubstituted heteroalkyl;

8                    PEG is polyethylene glycol;

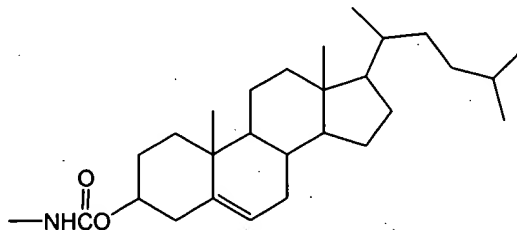
9                     $Y^3$  is an organic functional group adjoining said PEG to said CHOL.

1                    52.    (Previously presented) The probe nucleic acid according to claim 51,  
2    wherein said PEG has from about 2 to about 20 ethylene glycol subunits.

1                    53.    (Previously presented) The probe nucleic acid according to claim 51 in  
2    which  $R^{11}$  is substituted or unsubstituted alkyl.

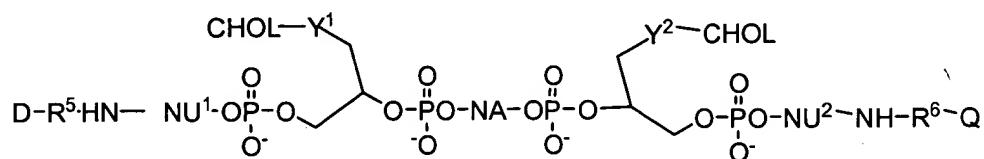
1                    54.    (Previously presented) The probe nucleic acid according to claim 53,  
2    wherein  $R^{11}$  is  $C_1$ - $C_6$  substituted or unsubstituted alkyl.

1                    55.    (Previously presented) The probe nucleic acid according to claim 51,  
2    wherein  $Y^3$ -CHOL has the structure:



56. (Previously presented) The probe nucleic acid according to claim 50,  
wherein Nu<sup>1</sup> and Nu<sup>2</sup> are nucleotides having an exocyclic amine group to which -R<sup>1</sup>-D and -R<sup>4</sup>Q  
are attached, respectively.

57. (Previously presented) A probe nucleic acid having the formula:



wherein,

NA is a nucleic acid sequence;

Nu<sup>1</sup> and Nu<sup>2</sup> are members independently selected from the group consisting of  
nucleotide residues and nucleoside residues;

Y<sup>1</sup> and Y<sup>2</sup> are linking groups independently selected from the group consisting of  
substituted or unsubstituted alkyl and substituted or unsubstituted  
heteroalkyl;

R<sup>5</sup> and R<sup>6</sup> are linking groups independently selected from the group consisting of  
substituted or unsubstituted alkyl and substituted or unsubstituted  
heteroalkyl;

D is a donor of light energy; and

Q is a quencher of light energy,

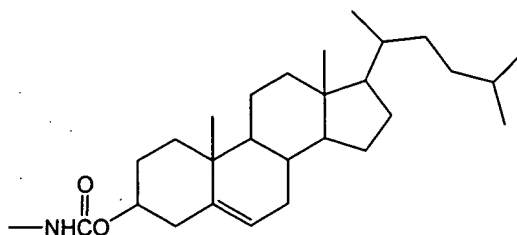
wherein each CHOL interacts with the other CHOL to bring D and Q into  
operative proximity, thereby enabling transfer of energy from D to Q, and  
wherein said probe nucleic acid sequence is not hybridized to a target nucleic  
acid.

58. (Previously presented) The probe nucleic acid according to claim 57,  
wherein Y<sup>1</sup> and Y<sup>2</sup> are members independently selected from substituted or unsubstituted  
heteroalkyl.

1                    59.    (Previously presented) The probe nucleic acid according to claim 58,  
2 wherein Y<sup>1</sup> and Y<sup>2</sup> are polyethylene glycol.

60.    (Previously presented) The probe nucleic acid according to claim 59,  
wherein said polyethylene glycol has from about 2 to about 20 ethylene glycol subunits.

1                    61.    (Previously presented) The probe nucleic acid according to claim 57,  
2 wherein Y<sup>1</sup>-CHOL and Y<sup>2</sup>-CHOL have the structure:



1                    62.    (Canceled)